Lighting the way

CIPCO improves lighting efficiency by up to 85 percent and takes an important step to the Internet of Everything.

"The possibilities of Ethernet-powered, software-controlled LED lighting are simply amazing."

- Paul Hofman, Vice President of Information Technology, CIPCO

An energy provider knows firsthand the importance of efficiency. Instead of simply marketing greener options to its customers, CIPCO decided to walk the walk.

Challenges

- Demonstrate energy efficiency to the community
- Optimize work environments for productivity
- Prepare for the future of networking

As Iowa's largest cooperative energy provider, Central Iowa Power Cooperative (CIPCO) distributes power to nearly 300,000 people. To inspire the use of efficient technology, it used its Cedar Rapids office as a showcase for next-generation lighting.

"We regularly invest in new technology to reduce environmental impact," says Paul Hofman, vice president of Information Technology. "Remodeling our boardroom, executive wing, and atrium was a perfect opportunity to demonstrate the advantages of intelligent lighting."

CIPCO wanted a solution that was easy to install and could be powered and controlled solely through Ethernet cables. It also wanted precise control over lighting through a Crestron audio-video control system.

"To make the project possible, we needed network switches that could provide 48 Power-over-Ethernet (PoE) ports or up to 30 ports of 60 watts," says Hofman. "We also needed partners that could help us pull it all together."

Case Study | Central Iowa Power Cooperative (CIPCO)

Size: 105 Employees Location: Des Moines, Iowa Industry: Energy
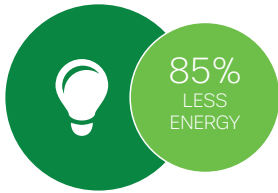
A digital "ceiling" of sensors, LED lighting, and software offers a new level of efficiency and control.

Solutions	- Deployed intelligent LED system by Innovative Lighting - Provided Cisco Smart+Connected Lighting for Indoor Environmens and delivered Cisco Universal Power Over Ethernet (UPOE) with Cisco Catalyst Switches - Provided intelligent lighting control with Igor platform

A model of energy efficiency

CIPCO has reduced lighting energy use by 75 percent in areas where the lighting solution has been deployed. The company expects that savings to increase to 85% with its smart control strategies such as using daylight harvesting and occupancy sensors to automatically dim and shut off lights.

85%
LESS ENERGY

More flexibility and control

Because lights are now just another IP endpoint, CIPCO can control scheduling and policies through its audio-video control system.

"We can control our lighting in a much more flexible way," says Hofman.

Change is easy

With no AC wiring required, CIPCO can make the best use of its lighting investment even as business needs change.

"Ethernet cable is much easier and faster to deploy compared to electrical conduit," says Hofman. "And we don't need to call an electrician if we want to move a light."

Illuminating new opportunities

CIPCO now has the "nervous system" in place to support the adoption of the Internet of Everything—the intelligent connection of people, process, data, and things—and continue to drive efficiencies.

Results

- Reduces lighting energy usage by up to 85 percent
- Can be integrated with audio-video control system
- Supports integration of additional networked devices

A proving ground for progressive technology

As CIPCO expands the solution in Cedar Rapids and Des Moines, it uses sensor data to track room usage and optimize office space utilization. "As an energy company adopting progressive lighting technology, we're proud to be on the leading edge," says Hofman.

Products & Services

Switching
- Cisco Switch supporting UPOE

Lighting and Control
- Innovative Lighting GENISYS PoE Lighting System
- IGOR PoE lighting platform

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